IN THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) A method for forming a microcoil comprising:
attaching a trace of conductive material to a film of insulating material; and
rolling the film to circumferentially wrap the trace of conductive material more than one revolution around a longitudinal axis of rolling.

2. (Original) The method for forming a microcoil of claim 1 wherein attaching a trace of conductive material comprises:
adhering a sheet of conducting material to the film of insulating material; masking the sheet of conducting material with a masking material;
etching the sheet of conducting material; and
removing the masking material.

3. (Original) The method for forming a microcoil of claim 1 wherein the trace of conductive material includes copper.

4. (Original) The method for forming a microcoil of claim 1 wherein the film of insulating material includes polyimide.

5. (Previously Presented) A method for forming a microcoil comprising:
attaching a trace of conductive material to a film of insulating material; and
rolling the film around a mandrel more than one revolution such that when rolled the trace of conductive material circumferentially wraps around a longitudinal axis of rolling.

6. (Original) The method for forming a microcoil of claim 5 wherein the mandrel comprises a round cross section.

7. (Original) The method for forming a microcoil of claim 5 wherein the mandrel is hollow.

8. (Original) The method for forming a microcoil of claim 5 wherein the mandrel comprises a semi-rigid coaxial line.

9. (Currently Amended) A method for forming a microcoil comprising:
attaching a trace of conductive material to a film of flexible insulating material;
attaching an end of the film to a mandrel; and
rolling the mandrel with the film attached such that when rolled the end of the film is pulled, and the trace of conductive material circumferentially wraps around a longitudinal axis of rolling.

10. (Currently Amended) The method for forming a microcoil of claim 9 further comprising:
affixing a solderable attaching trace to the film; and
wherein attaching the end of the film to the mandrel further comprises soldering the attaching trace to the mandrel.

11. (Withdrawn) A method for forming a microcoil comprising:
attaching a trace of conductive material to a flexible film of insulating material further comprising:
forming a plurality of legs on the film, each leg having a length;
forming at least one joining portion on the film, each joining portion having a length electrically connecting the legs;
forming a first lead on the film electrically coupled to the legs;
forming a second lead on the film electrically coupled to the legs, whereby electricity may flow from the first lead, through the legs and out to the second lead;
attaching the film to a mandrel; and
rolling the film around the mandrel such that when rolled each leg of the trace of conductive material circumferentially wraps around a longitudinal axis of rolling to form a winding.

12. (Withdrawn) The method for forming a microcoil of claim 11 wherein the length of the legs is substantially the same.

13. (Withdrawn) The method for forming a microcoil of claim 11 wherein a number of turns in the windings is adjusted by varying the length of the legs of the trace pattern.

14. (Withdrawn) The method for forming a microcoil of claim 11 wherein at least one longitudinal winding spacing of the microcoil is adjusted by varying the length of the at least one joining portion.

15. (Withdrawn) The method for forming a microcoil of claim 11 wherein a radial trace spacing of the microcoil is adjusted by varying a thickness of the film of insulating material.

16. (Withdrawn) The method for forming a microcoil of claim 11 wherein a longitudinal axis trace spacing is adjusted by varying a degree of perpendicularity of a portion of the legs to the longitudinal axis of rolling.

17. (Withdrawn) A winding comprising:
a coiled film of insulating material;
a trace of conductive material attached to the film wherein the trace further comprises:
a leg oriented on the film such that the leg circumferentially wraps around a longitudinal axis of the coiled film;
a first lead electrically coupled to the leg; and
a second lead electrically coupled to the leg, whereby electricity may flow from the first lead, through the one or more windings and out to the second lead.

18. (Withdrawn) The winding of claim 17 wherein the trace of conductive material includes copper.

19. (Withdrawn) The winding of claim 17 wherein the film of insulating material includes polyimide.

20. (Withdrawn) The winding of claim 17 further comprising at least one supplemental lead electrically connected to the trace of conductive material.

21. (Withdrawn) A microcoil comprising:
a coiled film of insulating material;
a trace of conductive material attached to the film wherein the trace comprises:
two or more windings electrically coupled together wherein each winding comprises:
a leg oriented on the film such that the leg circumferentially wraps around a longitudinal axis of the coiled film;
a first lead electrically coupled to the windings; and
a second lead electrically coupled to the windings, whereby electricity may flow from the first lead, through at least a portion of the windings and out to the second lead.

22. (Withdrawn) The microcoil of claim 21 wherein the trace of conductive material includes copper.

23. (Withdrawn) The microcoil of claim 21 wherein the film of insulating material includes polyimide.

24. (Withdrawn) The microcoil of claim 21 further comprising at least one supplemental lead electrically connected to the trace of conductive material.

25. (Withdrawn) A magnetic resonance imaging device comprising:
a catheter having a distal end and a proximal end;
a monitor device operatively connected to the proximal end of the catheter;
a microcoil operatively connected to the distal end of the catheter, the microcoil further comprising:
a coiled film of insulating material;
a trace of conductive material attached to the film wherein the trace comprises:
two or more windings electrically coupled together wherein each winding comprises:

a leg oriented on the film such that the leg circumferentially wraps around a longitudinal axis of the coiled film;

a first lead electrically coupled to the windings; and

a second lead electrically coupled to the windings, whereby electricity may flow from the first lead, through at least a portion of the windings and out to the second lead; and

a connecting channel for transmitting data from the microcoil to the monitor device.

26. (Withdrawn) The magnetic resonance imaging device of claim 22 further comprising at least one supplemental lead electrically connected to the trace of conductive material.

27. (Previously Presented) A method for forming a microcoil comprising:

attaching a trace of conductive material to a film of insulating material; and

rolling the film around a mandrel that includes coaxial conductors such that when rolled the trace of conductive material circumferentially wraps around a longitudinal axis of rolling.

28. (Previously Presented) The method for forming a microcoil of claim 27 further including:

attaching a solderable attaching trace to the film; and

soldering the attaching trace to the mandrel.

29. (Previously Presented) The method for forming a microcoil of claim 28, wherein attaching a solderable attaching trace to the film includes attaching a solderable attaching trace that is electrically isolated from the trace of conductive material.

30. (Previously Presented) A method for forming a microcoil comprising:

attaching a trace of conductive material to a film of insulating material; and

rolling the film to circumferentially wrap the trace of conductive material around a longitudinal axis of rolling;

wherein a plurality of electrically connected, substantially disk shaped windings are formed, the windings being substantially parallel to each other and spaced apart by a portion of the trace material.

31. (Previously Presented) A method for forming a microcoil comprising:

attaching a trace of conductive material to a film of insulating material; and

rolling the film to circumferentially wrap the trace of conductive material more than one revolution around a longitudinal axis of rolling, wherein at least one cone shaped winding is formed.

32. (Previously Presented) A method for forming a microcoil comprising:

attaching a trace of conductive material to a film of insulating material; and

rolling the film to circumferentially wrap the trace of conductive material around a longitudinal axis of rolling;

wherein a plurality of electrically connected, cone shaped windings are formed, with center axes of the cone shaped windings being substantially collinear, the windings being spaced apart by a portion of the trace material.

Please amend the claims as follows.